

My 12, 2003

Re: Mid-Continent Coal and Coke Company 127-16021-05222

TO: Interested Parties / Applicant

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for consideration at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.state.in.us/idem

May 12, 2003

Mr. Carl Horst
Mid-Continent Coal and Coke Company
915 W. 175th Street
Homewood, Illinois 60430

Re: Minor Source Modification No:
127-16021-05222

Dear Mr. Horst:

Mid-Continent Coal and Coke Company applied for a Minor Source Modification on May 20, 2002 for a portable source to be initially located at Bethlehem Steel, U.S. Highway 12, Burns Harbor, Indiana 46304. Pursuant to 326 IAC 2-7-10.5(d)(5), the following emission units are approved for construction at the source:

One (1) portable screening operation, with a maximum capacity of fifty (50) tons per hour, constructed in 2001, comprised of the following equipment:

- (a) One (1) coke screen;
- (b) Three (3) conveyors;
- (c) One (1) hopper;
- (d) One (1) internal combustion diesel generator, used to generate electric power, with a maximum capacity of 164 hp; and
- (e) One (1) front-end loader with a diesel internal combustion engine with a maximum capacity of 180 hp.

The proposed Minor Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(l)(3). The source may begin operation upon issuance of the source modification approval.



Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Kristin Clapp, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (703) 633-1694 to speak directly to Ms. Clapp. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
ERG/KC

cc: File - Porter County
U.S. EPA, Region V
Porter County Health Department
Air Compliance Section Inspector - David Sampias
Compliance Data Section - Karen Nowak
Administrative and Development - Sara Cloe
Technical Support and Modeling - Michele Boner



Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
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PART 70 MINOR SOURCE MODIFICATION OFFICE OF AIR QUALITY

**Mid-Continent Coal and Coke Company
U.S. Highway 12
Burns Harbor, Indiana 46304**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 127-16021-05222	
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: May 12, 2003

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SECTION A

SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the emission units contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a portable metallurgical coke screening plant.

Responsible Official:	Carl Horst
Initial Source Address:	U.S. Highway 12, Burns Harbor, Indiana 46304
Initial Source Mailing Address:	915 W. 175 th Street, Homewood, IL 60430
General Source Phone Number:	(708) 798-1110
SIC Code:	5052
Initial County Location:	Porter
Source Location Status:	Nonattainment for Ozone Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source under PSD and Emission Offset Rules; 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This portable source is approved to construct and operate the following emission units and pollution control devices:

One (1) portable screening operation, with a maximum capacity of fifty (50) tons per hour, constructed in 2001, comprised of the following equipment:

- (a) One (1) coke screen;
- (b) Three (3) conveyors;
- (c) One (1) hopper;
- (d) One (1) internal combustion diesel generator, used to generate electric power, with a maximum capacity of 164 hp; and
- (e) One (1) front-end loader with a diesel internal combustion engine with a maximum capacity of 180 hp.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This portable source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1(21).

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This portable source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);

- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.4 Local Agency Requirement

(a) If the portable coke screening plant seeks to move to an area under the jurisdiction of any applicable Local Air Pollution Control Agency (LAPCA), the LAPCA may enact additional air pollution control requirements. The Permittee should contact the LAPCA when planning to relocate into an applicable jurisdiction.

(b) The Local Air Pollution Control Agencies are:

Anderson

Jurisdiction: Madison County

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street, Anderson, IN 46011
(765) 648-6158 (Phone)
(765) 648-5924 (FAX)

East Chicago

Jurisdiction: City of East Chicago

East Chicago Department of Environmental Management
4522 Indianapolis Blvd., East Chicago, IN 46312
(219) 391-8297 (Phone)
(219) 391-8237 (FAX)

Evansville

Jurisdiction: City of Evansville plus four (4) miles beyond the corporate limits but not outside Vanderburgh County

City of Evansville EPA
101 Court Street, Rm 205, Evansville, IN 47708
(812) 435-6145 (Phone)
(812) 435-6155 (FAX)

Gary

Jurisdiction: City of Gary

Gary Department of Environmental Affairs
504 N. Broadway, Suite 1012, Gary, IN 46402
(219) 882-3007 (Phone)
(219) 882-3012 (FAX)

Hammond

Jurisdiction: City of Hammond

Hammond Department of Environmental Management
5925 Calumet Avenue, Hammond, IN 46320
(219) 853-6306 (Phone)
(219) 853-6343 (FAX)

Indianapolis

Jurisdiction: Marion County

Environmental Resources Management Division
Administration Building, 2700 South Belmont Ave, Indianapolis, IN 46221
(317) 327-2234 (Phone)
(317) 274-2274 (FAX)

St. Joseph County

Jurisdiction: St. Joseph County

St. Joseph County Health Department
County-City Building, Room 914, South Bend, IN 466601-1870
(219) 235-9721 (Phone)
(219) 235-9497 (FAX)

Vigo County

Jurisdiction: Vigo County

Vigo County Air Pollution Control
103 S. 3rd St., Terre Haute, IN 47807
(812) 462-3433 (Phone)
(812) 462-3433(FAX)

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) when operation begins, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and any applicable Local Air Pollution Control Agency (as described in Condition B.4 of this permit)

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, and any applicable Local Air Pollution Control Agency (as described in Condition B.4 of this permit) upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and any applicable Local Air Pollution Control Agency (as described in Condition B.4 of this permit). IDEM, OAQ, and any applicable Local Air Pollution Control Agency (as described in Condition B.4 of this permit) may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP

does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner and any applicable Local Air Pollution Control Agency (as described in Condition B.4 of this permit) makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner and any applicable Local Air Pollution Control Agency (as described in Condition B.4 of this permit) within a reasonable time.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and any applicable Local Air Pollution Control Agency (as described in Condition B.4 of this permit)

Any such application shall be certified by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

As a portable source which can relocate to any county in Indiana and pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Lake County Particulate Matter Contingency Measures [326 IAC 6-1-11.2]

The Permittee shall comply with the applicable provisions of 326 IAC 6-1-11.2 (Lake County Particulate Matter Contingency Measures), when located in Lake County.

C.7 Fugitive Dust Emissions [326 IAC 6-1-11.1]

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements, when located in Lake County:

- (a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
- (b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
- (c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).
- (d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.
- (e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (f) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.
- (g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
- (h) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
- (i) The PM₁₀ emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (j) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (k) Any facility or operation not specified in 326 IAC 6-1-11.1(d) shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on May 20, 2002.

C.8 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on May 20, 2002. This plan indicates that the fugitive emissions will be controlled by spraying the unpaved roads with water on an as-needed basis.

C.9 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

If required by Section D, all monitoring and record keeping requirements shall be implemented when operation begins. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.13 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and any applicable Local Air Pollution Control Agency (as described in Condition B.4 of this permit) or regional office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967
 - (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality

100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and any applicable Local Air Pollution Control Agency (as described in Condition B.4 of this permit).

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, and any applicable Local Air Pollution Control Agency (as described in Condition B.4 of this permit) may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, and any applicable Local Air Pollution Control Agency (as described in Condition B.4 of this permit) by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]
[326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM,

OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.15 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or any applicable Local Air Pollution Control Agency (as described in Condition B.4 of this permit) makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or any applicable Local Air Pollution Control Agency (as described in Condition B.4 of this permit) within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.16 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) The reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and any applicable Local Air Pollution Control Agency (as described in Condition B.4 of this permit).

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and any applicable Local Air Pollution Control Agency (as described in Condition B.5 of this permit) on or before the date it is due.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Portable Source Requirement

C.17 Relocation of Portable Sources [326 IAC 2-14-4]

- (a) This permit is approved for operation in all areas of Indiana. A thirty (30) day advance notice of relocation must be given to IDEM, OAQ, and a "Relocation Site Approval" letter must be obtained before relocating. The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The Permittee shall also notify the applicable local air pollution control agency when relocating to, or from, one the following:
 - (1) Madison County - (Anderson Office of Air Quality)
 - (2) City of Evansville plus four (4) miles beyond the corporate limits but not outside Vanderburgh County - (Evansville EPA)
 - (3) City of Gary - (Gary Division of Air Pollution)
 - (4) City of Hammond - (Hammond Department of Environmental Management)
 - (5) Marion County - (Indianapolis Air Pollution Control Agency)
 - (6) St. Joseph County - (St. Joseph County Health Department)
 - (7) Vigo County - (Vigo County Air Pollution Department)
- (c) That a valid operation permit consists of this document and any subsequent "Relocation Site Approval" letter specifying the current location of the portable plant.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Portable Coke Screening Operation

One (1) portable screening operation, with a maximum capacity of fifty (50) tons per hour, constructed in 2001, comprised of the following equipment:

- (a) One (1) coke screen;
- (b) Three (3) conveyors;
- (c) One (1) hopper;
- (d) One (1) internal combustion diesel generator, used to generate electric power, with a maximum capacity of 164 hp; and
- (e) One (1) front-end loader with a diesel internal combustion engine with a maximum capacity of 180 hp.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 PSD Minor Limitations [326 IAC 2-2]

- (a) The Permittee shall limit the diesel fuel usage by the portable source to no greater than eighty (80) kilogallons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is equivalent to NOx emissions of twenty-four and eight-tenths (24.8) tons per year. Since this limitation limits NOx emissions from the portable coke screening operation to less than forty (40) tons per year, compliance with this limitation renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable. Therefore, the portable coke screening operation can relocate to any PSD major source and not be subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).
- (b) The Permittee shall limit the throughput of coke to the portable coke screening operation to less than 99,390 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This is equivalent to PM emissions of 14.91 tons per year and PM10 emissions of 9.94 tons per year. This limit is structured such that, when including the fugitive emissions and the limited emissions from the combustion of diesel fuel, PM emissions from the portable source are less than twenty-five (25) tons per year and PM10 emissions from the portable coke screening operation are less than fifteen (15) tons per year. Compliance with this limitation renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable. Therefore, the portable coke screening operation can relocate to any PSD major source and not be subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

D.1.2 Emission Offset Minor Limit [326 IAC 2-3]

The Permittee shall limit the throughput of coke to the portable coke screening operation to less than 99,390 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This is equivalent to PM emissions of 14.91 tons per year and PM10 emissions of 9.94 tons per year. This limit is structured such that, when including the fugitive emissions and the limited emissions from the combustion of diesel fuel, PM emissions from the portable coke screening plant are less than twenty-five (25) tons per year and PM10 emissions from the portable coke screening operation are less than fifteen (15) tons per year. Compliance with this limitation renders the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

Therefore, the portable coke screening operation can relocate to any Emission Offset major source in any nonattainment county and not be subject to the requirements of 326 IAC 2-3 (Emission Offset).

D.1.3 Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the portable coke screening operation shall be limited to less than 44.58 pounds per hour when operating at a process weight rate of 50 tons per hour. This limit was calculated using the following equation.

Interpolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

D.1.4 Fugitive Particulate Matter (PM)

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), when the source is located in Lake County, compliance with the opacity limits specified in Condition C.7 (Fugitive Dust Emissions) shall be achieved by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan (FDCP). If it is determined that the control procedures specified in the FDCP do not demonstrate compliance with the fugitive emission limitations, IDEM, OAQ may request that the FDCP be revised and submitted for approval.

D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

Compliance Determination Requirements

D.1.6 Particulate Matter (PM)

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), when located in Lake County, opacity from the activities shall be determined as follows:

(a) Paved Roads and Parking Lots

The average instantaneous opacity shall be the average of twelve (12) instantaneous opacity readings, taken for four (4) vehicle passes, consisting of three (3) opacity readings for each vehicle pass. The three (3) opacity readings for each vehicle pass shall be taken as follows:

- (1) The first will be taken at the time of emission generation.
- (2) The second will be taken five (5) seconds later.
- (3) The third will be taken five (5) seconds later or ten (10) seconds after the first.

The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the roadway or parking area.

(b) Unpaved Roads and Parking Lots

The fugitive particulate emissions from unpaved roads shall be controlled by the implementation of a work program and work practice under the fugitive dust control plan.

- (c) **Batch Transfer**
The average instantaneous opacity shall consist of the average of three (3) opacity readings taken five (5) seconds, ten (10) seconds, and fifteen (15) seconds after the end of one (1) batch loading or unloading operation. The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume.
- (d) **Continuous Transfer**
The opacity shall be determined using 40 CFR 60, Appendix A, Method 9. The opacity readings shall be taken at least four (4) feet from the point of origin.
- (e) **Wind Erosion from Storage Piles**
The opacity shall be determined using 40 CFR 60, Appendix A, Method 9, except that the opacity shall be observed at approximately four (4) feet from the surface at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume. The limitations may not apply during periods when application of fugitive particulate control measures are either ineffective or unreasonable due to sustained very high wind speeds. During such periods, the company must continue to implement all reasonable fugitive particulate control measures and maintain records documenting the application of measures and the basis for a claim that meeting the opacity limitation was not reasonable given prevailing wind conditions.
- (f) **Wind Erosion from Exposed Areas**
The opacity shall be determined using 40 CFR 60, Appendix A, Method 9.
- (g) **Material Transported by Truck or Rail**
Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 22, except that the observation shall be taken at approximately right angles to the prevailing wind from the leeward side of the truck or railroad car. Material transported by truck or rail that is enclosed and covered shall be considered in compliance with the inplant transportation requirement.
- (h) **Material Transported by Front End Loader or Skip Hoist**
Compliance with this limitation shall be determined by the average of three (3) opacity readings taken at five (5) second intervals. The three (3) opacity readings shall be taken as follows:
 - (1) The first will be taken at the time of emission generation.
 - (2) The second will be taken five (5) seconds later.
 - (3) The third will be taken five (5) seconds later or ten (10) seconds after the first.The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand at least fifteen (15) feet from the plume approximately and at right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the roadway or parking area.
- (i) **Material Processing Limitations**
Compliance with all opacity limitations from material processing equipment shall be determined using 40 CFR 60, Appendix A, Method 9. Compliance with all visible emissions limitations from material processing equipment shall be determined using 40 CFR 60, Appendix A, Method 22. Compliance with all particulate matter limitations from material processing equipment shall be determined using 40 CFR 60, Appendix A, Method 5 or 17.

- (j) Dust Handling Equipment
Compliance with this standard shall be determined by 40 CFR 60, Appendix A, Method 9.

Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.7 Record Keeping Requirements

- (a) In order to demonstrate compliance with Condition D.1.1, the Permittee shall maintain records of the diesel fuel usage.
- (b) In order to demonstrate compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records of metallurgical coke processed.
- (c) Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), when located in Lake County, the source shall keep the following documentation to show compliance with each of its control measures and control practices:
 - (1) A map or diagram showing the location of all emission sources controlled, including the location, identification, length, and width of roadways.
 - (2) For each application of water or chemical solution to roadways, the following shall be recorded:
 - (A) The name and location of the roadway controlled
 - (B) Application rate
 - (C) Time of each application
 - (D) Width of each application
 - (E) Identification of each method of application
 - (F) Total quantity of water or chemical used for each application
 - (G) For each application of chemical solution, the concentration and identity of the chemical
 - (H) The material data safety sheets for each chemical
 - (3) For application of physical or chemical control agents not covered by 326 IAC 6-1-11.1(B), the following:
 - (A) The name of the agent
 - (B) Location of application
 - (C) Application rate
 - (D) Total quantity of agent used
 - (E) If diluted, percent of concentration
 - (F) The material data safety sheets for each chemical

- (4) A log recording incidents when control measures were not used and a statement of explanation.
- (5) Copies of all records required by this section shall be submitted to the department within twenty (20) working days of a written request by the department.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.8 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), when located in Lake County, a quarterly report shall be submitted, stating the following:
 - (1) The dates any required control measures were not implemented
 - (2) A listing of those control measures
 - (3) The reasons that the control measures were not implemented
 - (4) Any corrective action taken

These reports shall be submitted within thirty (30) calendar days following the end of each calendar quarter and in accordance with Section C - General Reporting Requirements of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

FESOP or PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: Mid-Continent Coal and Coke
Source Address: U.S. Highway 12, Burns Harbor, Indiana 46304
Mailing Address: 915 W. 175th Street, Homewood, IL 60430
Source Modification No.: 127-16021-05222

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP or Part 70 Source Modification Quarterly Report

Source Name: Mid-Continent Coal and Coke
Source Address: U.S. Highway 12, Burns Harbor, Indiana 46304
Mailing Address: 915 W. 175th Street, Homewood, IL 60430
Source Modification No.: 127-16021-05222
Facility: Coke screening operation
Parameter: Coke throughput
Limit: Less than 99,390 tons per twelve (12) consecutive month period with compliance determined at the end of each month

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP or Part 70 Source Modification Quarterly Report

Source Name: Mid-Continent Coal and Coke
Source Address: U.S. Highway 12, Burns Harbor, Indiana 46304
Mailing Address: 915 W. 175th Street, Homewood, IL 60430
Source Modification No.: 127-16021-05222
Facility: Internal Combustion Engines
Parameter: Diesel Fuel Usage
Limit: No greater than eight (80) kilogallons per twelve (12) consecutive month period with compliance determined at the end of each month

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Part 70 Minor Source Modification

Source Background and Description

Source Name:	Mid-Continent Coal and Coke Company
Initial Source Location:	U.S. Highway 12, Burns Harbor, Indiana 46304
Initial County:	Porter
SIC Code:	5052
Operation Permit No.:	See History/Source Definition Section
Operation Permit Issuance Date:	See History/Source Definition Section
Minor Source Modification No.:	127-16021-05222
Permit Reviewer:	ERG/KC

The Office of Air Quality (OAQ) has reviewed a modification application from Mid-Continent Coal and Coke Company (MCCC) relating to the construction and operation of the following emission units and pollution control devices:

One (1) portable screening operation, with a maximum capacity of fifty (50) tons per hour, constructed in 2001, comprised of the following equipment:

- (a) One (1) coke screen;
- (b) Three (3) conveyors;
- (c) One (1) hopper;
- (d) One (1) internal combustion diesel generator, used to generate electric power, with a maximum capacity of 164 hp; and
- (e) One (1) front-end loader with a diesel internal combustion engine with a maximum capacity of 180 hp.

History/Source Definition

This portable screening operation was initially constructed at Bethlehem Steel (127-00079), U.S. Highway 12, Burns Harbor, Indiana 46304, in Porter County without a permit in 2001. This source will continue to be located there upon permit issuance. In its process, Bethlehem Steel creates undersized coke. MCCC buys the undersized coke from Bethlehem Steel for its own purposes, screens the coke, and sells it to customers that do not include Bethlehem Steel. All of the coke that MCCC screens by this portable plant is bought from Bethlehem Steel. For these reasons, this portable coke screening plant is considered co-located with Bethlehem Steel.

MCCC is a portable source and can move to another location with IDEM, OAQ's approval. At each location, MCCC will be screening undersized coke from steel mills. At each location that this portable screening plant moves, it will be considered co-located with that facility. This MSM

is for a FESOP or Part 70 source and is written generically in order to allow the portable source to relocate to any source including sources that are major sources under the Emission Offset (EO) and Prevention of Significant Deterioration (PSD) programs.

Enforcement Issue

- (a) IDEM is aware that the portable screening plant has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment*.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Stack Summary

Facilities at this source do not exhaust to any stacks and/or vents.

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on May 20, 2002.

Emission Calculations

See pages 1 through 4 of Appendix A of this document for detailed emissions calculations.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	72.12
PM-10	50.21
SO ₂	3.09
VOC	3.72
CO	10.06
NO _x	46.71

HAP's	Potential To Emit (tons/year)
Total HAPs	Negligible

Justification for Modification

The Part 70 source is being modified through a Part 70 Minor Source Modification. Pursuant to 326 IAC 2-7-10.5(d)(5) this modification is minor because the potential to emit PM, PM10, and NO_x is limited to less than twenty-five tons per year through a fuel usage limit and a raw material throughput limit.

County Attainment Status

The source was initially located in Porter County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Severe Nonattainment
CO	Attainment
Lead	Attainment

- (a) This 50 ton per hour coke screening plant is a portable source initially located in Porter County. As a portable source, the plant can be located in both attainment and nonattainment areas. Therefore, the criteria pollutant emissions, including volatile organic compounds (VOC), which are the precursor pollutants considered when evaluating rule applicability relating to the ozone standards, were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2, and the requirements for Emission Offset, 326 IAC 2-3.
- (b) As a portable source, this plant can be located at one (1) of the twenty-eight (28) listed source categories under 326 IAC 2-2 (Prevention of Significant Deterioration) or 326 IAC 2-3 (Emission Offset), such as a steel mill. Therefore, fugitive PM emissions are counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	*
PM-10	*
SO ₂	*
VOC	*
CO	*
NO _x	*

* The assumption is that the portable equipment could be located at a source where at least one of the pollutants is greater than the major thresholds for the Part 70 Permit, Emission Offset, and Prevention of Significant Deterioration programs.

Note: This source is a portable source and can relocate to another source with proper approval from IDEM, OAQ. This permit is written generically in order to allow this portable source to be located at any source including sources that are major sources under the Part 70 Permit, Emission Offset, and Prevention of Significant Deterioration programs.

The existing source where the portable equipment is located is potentially a PSD major stationary source because an attainment regulated pollutant is emitted at a rate of 100 tons per year or more and it is one of the 28 listed source categories.

The existing source where the portable equipment is located is potentially an Emission Offset major stationary source because a nonattainment regulated pollutant is emitted at a rate of 100 tons per year or more, or VOC or NO_x are emitted at a rate exceeding the Emission Offset threshold for the county's specific nonattainment status.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Coke Screening Operation	Less than 15 (326 IAC 2-2 and 326 IAC 2-3)	Less than 15 (326 IAC 2-2 and 326 IAC 2-3)				Less than 25 (326 IAC 2-2)*	Neg.
PSD Thresholds	25	15	40	40	100	40	---
Emission Offset Thresholds	25	15	40	25**	100	40	---

Neg. = Negligible

* Although the PSD threshold for NO_x is 40 tons per year, the source requested that they be limited to 25 tons per year. This will allow this source to process more coke and still meet the PM and PM10 limits of 25 tons per year and 15 tons per year, respectively.

** The source's actual VOC emissions are less than 25 tons per year. Therefore, pursuant to 326 IAC 2-1.1-3(h)(2)(D), the source does not have to perform a de minimus analysis upon each relocation.

This modification to an existing potentially major stationary source is not major under PSD because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

This modification to an existing potentially major stationary source is not major under Emission Offset because the emissions increase is less than the Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Portable Source

- (a) Initial Location
This is a portable source and its initial location is U.S. Highway 12, Burns Harbor, Indiana 46304.
- (b) PSD and Emission Offset Requirements
The emissions from this portable source were reviewed under the requirements of the Prevention of Significant Deterioration (PSD), 326 IAC 2-2, and Emission Offset, 326 IAC 2-3.
- (c) Fugitive Emissions
Since this plant is a portable source and could be located at an operation that is one (1) of the twenty-eight (28) listed sources under 326 IAC 2-2 (Prevention of Significant Deterioration), or 326 IAC 2-3 (Emission Offset), such as a steel mill, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are counted toward determination of PSD and Emission Offset applicability.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source. 40 CFR Part 60 Subpart OOO (New Source Performance Standards for Nonmetallic Mineral Processing) does not apply to this source because coke is not defined as a nonmetallic mineral pursuant to 40 CFR 60.671.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.
- (c) This source is not subject to the provisions of 40 CFR 64, Compliance Assurance Monitoring (CAM). In order for this rule to apply, a specific emissions unit must meet three criteria for a given pollutant: 1) the unit is subject to an emission limitation or standard for the applicable regulated air pollutant, 2) the unit uses a control device to achieve compliance with any such emission limitation or standard, and, 3) the unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount required for a source to be classified as a major source. The portable coke screening plant does not use a control device to comply with an applicable emission limitations. Therefore, the portable coke screening plant is not subject to the requirements of CAM.
- (d) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are not applicable to this source because the source is not a major source of HAPs (i.e., the source does not have the potential to emit 10 tons per year or greater of a single HAP or 25 tons per year or greater of a combination of HAPs) and the source does not include one or more units that belong to one or more source categories affected by the Section 112(j) MACT Hammer date of May 15, 2002.

State Rule Applicability - Portable Coke Screening Plant

326 IAC 2-2 (Prevention of Significant Deterioration)

- (a) The Permittee shall limit the diesel fuel usage by the portable source to no greater than eighty (80) kilogallons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is equivalent to NO_x emissions of twenty-four and eight-tenths (24.8) tons per year. Since this limitation limits NO_x emissions from the portable coke screening operation to less than forty (40) tons per year, compliance with this limitation renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable. Therefore, the portable coke screening operation can relocate to any PSD major source and not be subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration). The source requested the lower limit of 24.8 tons per year in order to accommodate a higher coke throughput for the PM and PM₁₀ limits.
- (b) The Permittee shall limit the throughput of coke to the portable coke screening operation to less than 99,390 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This is equivalent to PM emissions of 14.91 tons per year and PM₁₀ emissions of 9.94 tons per year. This limit is structured such that, when including the fugitive emissions and the limited emissions from the combustion of diesel fuel, PM emissions from the portable source are less than twenty-five (25) tons per year and PM₁₀ emissions from the portable coke screening operation are less than fifteen (15) tons per year. Compliance with this limitation renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable. Therefore, the portable coke screening operation can relocate to any PSD major source and not be subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).
- (c) Under maximum operating capacity conditions, the potential to emit of both SO₂ and VOC is less than forty (40) tons per year and the potential to emit of CO is less than one

hundred (100) tons per year. Therefore, the portable coke screening operation can relocate to any PSD major source and not be subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

326 IAC 2-3 (Emission Offset)

- (a) The Permittee shall limit the throughput of coke to the portable coke screening operation to less than 99,390 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This is equivalent to PM emissions of 14.91 tons per year and PM10 emissions of 9.94 tons per year. This limit is structured such that, when including the fugitive emissions and the limited emissions from the combustion of diesel fuel, PM emissions from the portable coke screening plant are less than twenty-five (25) tons per year and PM10 emissions from the portable coke screening operation are less than fifteen (15) tons per year. Compliance with this limitation renders the requirements of 326 IAC 2-3 (Emission Offset) not applicable. Therefore, the portable coke screening operation can relocate to any Emission Offset major source in any nonattainment county and not be subject to the requirements of 326 IAC 2-3 (Emission Offset).
- (b) Under maximum operating capacity conditions, the potential to emit of SO₂ is less than forty (40) tons per year and the potential to emit of CO is less than one hundred (100) tons per year. Therefore, the portable coke screening operation can relocate to any Emission Offset major source in any nonattainment county and not be subject to the requirements of 326 IAC 2-3 (Emission Offset).
- (c) Under maximum operating conditions and under conditions limited by the fuel usage limit, the actual VOC emissions from the source are less than twenty-five (25) tons per year. Therefore, pursuant to 326 IAC 2-1.1-3(h)(2)(D) (Exemptions), the source shall not have to perform a de minimus analysis upon this or any other relocation.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

This source has the potential to emit less than ten (10) tons per year of a single HAP and less than twenty-five (25) tons per year of any combination of HAPs. Therefore, this source is not subject to the requirements of 326 IAC 2-4.1.

326 IAC 2-6 (Emission Reporting)

The source is subject to 326 IAC 2-6 (Emission Reporting) because it has the potential to emit more than ten (10) tons per year of NO_x, and as a portable source can relocate to any county in Indiana. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 2-14-4 (Relocation of Portable Sources)

- (a) This permit is approved for operation in all areas of Indiana. A thirty (30) day advance notice of relocation must be given to IDEM, OAQ, and a "Relocation Site Approval" letter must be obtained before relocating. The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The Permittee shall also notify the applicable local air pollution control agency when relocating to, or from, one the following:
 - (1) Madison County - (Anderson Office of Air Management)
 - (2) City of Evansville plus four (4) miles beyond the corporate limits but not outside Vanderburgh County - (Evansville EPA)
 - (3) City of Gary - (Gary Division of Air Pollution)

- (4) City of Hammond - (Hammond Department of Environmental Management)
- (5) Marion County - (Indianapolis Air Pollution Control Agency)
- (6) St. Joseph County - (St. Joseph County Health Department)
- (7) Vigo County - (Vigo County Air Pollution Department)
- (c) That a valid operation permit consists of this document and any subsequent "Relocation Site Approval" letter specifying the current location of the portable plant.

326 IAC 5-1 (Opacity Limitations)

As a portable source which can relocate to any county in Indiana and pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-1-2 (Nonattainment Area Limitations)

As a portable source, the coke screening operation can relocate to any county in Indiana. This portable coke screening plant is not subject to the requirements of 326 IAC 6-1-2 (Nonattainment Area Limitations) because the potential to emit of PM from this source is less than one hundred (100) tons per year and actual emissions of PM are less than ten (10) tons per year. Additionally, the equipment at this source is not specifically listed in any of the counties listed under 326 IAC 6-1.

326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements)

As a portable source, the coke screening operation can relocate to Lake County. Therefore, the source is subject to the requirements of 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), when located in Lake County, because it has the potential to emit fugitive particulate matter greater than five (5) tons per year. Pursuant to 326 IAC 6-1-11.1, when located in Lake County, the particulate matter emissions from source wide activities shall meet the following requirements:

- (a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
- (b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
- (c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).
- (d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.
- (e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.

- (f) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.
- (g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
- (h) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
- (i) The PM_{10} emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (j) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (k) Any facility or operation not specified in 326 IAC 6-1-11.1(d) shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on May 20, 2002. This plan indicates that the fugitive emissions will be controlled by spraying the unpaved roads with water on an as-needed basis.

Compliance Determination Requirements

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), when located in Lake County, opacity from the activities shall be determined as follows:

- (a) **Paved Roads and Parking Lots**
The average instantaneous opacity shall be the average of twelve (12) instantaneous opacity readings, taken for four (4) vehicle passes, consisting of three (3) opacity readings for each vehicle pass. The three (3) opacity readings for each vehicle pass shall be taken as follows:
 - (1) The first will be taken at the time of emission generation.
 - (2) The second will be taken five (5) seconds later.
 - (3) The third will be taken five (5) seconds later or ten (10) seconds after the first.The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the roadway or parking area.
- (b) **Unpaved Roads and Parking Lots**
The fugitive particulate emissions from unpaved roads shall be controlled by the implementation of a work program and work practice under the fugitive dust control plan.
- (c) **Batch Transfer**
The average instantaneous opacity shall consist of the average of three (3) opacity readings taken five (5) seconds, ten (10) seconds, and fifteen (15) seconds after the end of one (1) batch loading or unloading operation. The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume.

- (d) Continuous Transfer
The opacity shall be determined using 40 CFR 60, Appendix A, Method 9. The opacity readings shall be taken at least four (4) feet from the point of origin.
- (e) Wind Erosion from Storage Piles
The opacity shall be determined using 40 CFR 60, Appendix A, Method 9, except that the opacity shall be observed at approximately four (4) feet from the surface at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plum and at approximately right angles to the plume. The limitations may not apply during periods when application of fugitive particulate control measures are either ineffective or unreasonable due to sustained very high wind speeds. During such periods, the company must continue to implement all reasonable fugitive particulate control measures and maintain records documenting the application of measures and the basis for a claim that meeting the opacity limitation was not reasonable given prevailing wind conditions.
- (f) Wind Erosion from Exposed Areas
The opacity shall be determined using 40 CFR 60, Appendix A, Method 9.
- (g) Material Transported by Truck or Rail
Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 22, except that the observation shall be taken at approximately right angles to the prevailing wind from the leeward side of the truck or railroad car. Material transported by truck or rail that is enclosed and covered shall be considered in compliance with the inplant transportation requirement.
- (h) Material Transported by Front End Loader or Skip Hoist
Compliance with this limitation shall be determined by the average of three (3) opacity readings taken at five (5) second intervals. The three (3) opacity readings shall be taken as follows:
 - (1) The first will be taken at the time of emission generation.
 - (2) The second will be taken five (5) seconds later.
 - (3) The third will be taken five (5) seconds later or ten (10) seconds after the first.The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand at least fifteen (15) feet from the plume approximately and at right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the roadway or parking area.
- (i) Material Processing Limitations
Compliance with all opacity limitations from material processing equipment shall be determined using 40 CFR 60, Appendix A, Method 9. Compliance with all visible emissions limitations from material processing equipment shall be determined using 40 CFR 60, Appendix A, Method 22. Compliance with all particulate matter limitations from material processing equipment shall be determined using 40 CFR 60, Appendix A, Method 5 or 17.
- (j) Dust Handling Equipment
Compliance with this standard shall be determined by 40 CFR 60, Appendix A, Method 9.

Record Keeping Requirements

- (a) Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), when located in Lake County, the source shall keep the following documentation to show compliance with each of its control measures and control practices:
 - (1) A map or diagram showing the location of all emission sources controlled, including the location, identification, length, and width of roadways.
 - (2) For each application of water or chemical solution to roadways, the following shall be recorded:
 - (A) The name and location of the roadway controlled
 - (B) Application rate
 - (C) Time of each application
 - (D) Width of each application
 - (E) Identification of each method of application
 - (F) Total quantity of water or chemical used for each application
 - (G) For each application of chemical solution, the concentration and identity of the chemical
 - (H) The material data safety sheets for each chemical
 - (3) For application of physical or chemical control agents not covered by 326 IAC 6-1-11.1(B), the following:
 - (A) The name of the agent
 - (B) Location of application
 - (C) Application rate
 - (D) Total quantity of agent used
 - (E) If diluted, percent of concentration
 - (F) The material data safety sheets for each chemical
 - (4) A log recording incidents when control measures were not used and a statement of explanation.
 - (5) Copies of all records required by this section shall be submitted to the department within twenty (20) working days of a written request by the department.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Reporting Requirements

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), when located in Lake County, a quarterly report shall be submitted, stating the following:

- (a) The dates any required control measures were not implemented.
- (b) A listing of those control measures.
- (c) The reasons that the control measures were not implemented.
- (d) Any corrective action taken.

These reports shall be submitted within thirty (30) calendar days following the end of each calendar quarter and in accordance with Section C - General Reporting Requirements of this permit.

326 IAC 6-1-11.2 (Lake County Particulate Matter Contingency Measures)

As a portable source, the coke screening operation can relocate to Lake County. Therefore, this source is subject to the requirements of 326 IAC 6-1.11-2, when located in Lake County, because the source has the potential to emit PM₁₀ greater than ten (10) tons per year.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the portable coke screening operation shall be limited to less than 44.58 pounds per hour when operating at a process weight rate of 50 tons per hour. This limit was calculated using the following equation.

Interpolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

At maximum operating capacity, the portable coke screening operation is in compliance with this limitation.

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-4, the source shall not generate fugitive dust to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

This source is subject to the requirements of 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations) because it is a new source of particulate matter as described in 326 IAC 6-5-1(b). Pursuant to this rule, the Permittee shall control fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on May 20, 2002. This plan indicates that the fugitive emissions will be controlled by spraying the unpaved roads with water on an as-needed basis.

326 IAC 7-1.1-2 (Sulfur Dioxide (SO₂) Emission Limitations)

The portable coke screening operation is not subject to the requirements of 326 IAC 7-1.1-2 (Sulfur Dioxide (SO₂) Emission Limitations) because the screening operation does not have the potential to emit greater than twenty-five (25) tons per year of sulfur dioxide.

326 IAC 8-1-6 (New Facilities; General Reduction Requirement)

This source does not have potential VOC emissions equal to or greater than twenty five (25) tons per year. Therefore this source is not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements).

326 IAC 10-1 (Nitrogen Oxides Control in Clark and Floyd Counties)

As a portable source, the coke screening operation can relocate to any county in Indiana. The source is limiting NOx emissions to less than twenty-five (25) tons per year. Therefore, the portable coke screening operation is not subject to the requirements of 326 IAC 10-1 (Nitrogen Oxides Control in Clark and Floyd Counties).

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Conclusion

The construction of this portable screening operation shall be subject to the conditions of the proposed Part 70 Minor Source Modification No. 127-16021-05222.

Appendix A: Emissions Calculations
PM Emissions from Coke Processing
Company Name: Mid-Continent Coal and Coke Company
Permit Number: 127-16021-05222
Plant ID: 127-05222
Reviewer: ERG/KC
Date: 10/23/2002

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Coke Processing Operations (Uncontrolled)

Activity	Capacity (ton/yr)	PM Emission Factor (lb/ton)	Conversion factor	Uncontrolled Emissions (ton/yr)
Storage	** see page 2 **			
Transporting	** see page 2 **			
Unloading Raw Coke	438,000 ton/yr x	0.02 lb/ton x	0.0005 ton/lb x	4.38 tons/yr
Screening	438,000 ton/yr x	0.09 lb/ton x	0.0005 ton/lb x	19.71 tons/yr
Conveying	438,000 ton/yr x	0.09 lb/ton x	0.0005 ton/lb x	19.71 tons/yr
Loading Finished Coke	438,000 ton/yr x	0.1 lb/ton x	0.0005 ton/lb x	21.90 tons/yr
Total Potential to Emit PM =				65.70 tons/yr
Total Potential to Emit PM-10 =				43.80 tons/yr

Coke Processing Operations (Controlled)

Storage	** see page 2 **			
Transporting	** see page 2 **			
Unloading Raw Coke	4.38 tons/yr x	50% emitted after controls =		2.19 tons/yr
Screening	19.71 tons/yr x	50% emitted after controls =		9.86 tons/yr
Conveying	19.71 tons/yr x	50% emitted after controls =		9.86 tons/yr
Loading Finished Coke	21.90 tons/yr x	50% emitted after controls =		10.95 tons/yr
Total Controlled Potential to Emit PM =				32.85 tons/yr
Total Controlled Potential to Emit PM-10 =				21.90 tons/yr

The source wets the coke to control PM/PM10 emissions. This activity has an estimated 50% control efficiency.

The PM-10 Emission Factor for screening and conveying is 0.04 lb/ton. As a result, potential PM-10 emissions are 66.67% of PM emissions.

The Emission Factors are from the AIRS Facility Subsystem Source Classification Codes.

Coke Processing Operations (Limited)

Limited throughput = 99,390 ton/yr

Activity	Capacity (ton/yr)	PM Emission Factor (lb/ton)	Conversion factor	Uncontrolled Emissions (ton/yr)
Storage	** see page 2 **			
Transporting	** see page 2 **			
Unloading Raw Coke	99390 ton/yr x	0.02 lb/ton x	0.0005 ton/lb x	0.9939 tons/yr
Screening	99390 ton/yr x	0.09 lb/ton x	0.0005 ton/lb x	4.47255 tons/yr
Conveying	99390 ton/yr x	0.09 lb/ton x	0.0005 ton/lb x	4.47255 tons/yr
Loading Finished Coke	99390 ton/yr x	0.1 lb/ton x	0.0005 ton/lb x	4.9695 tons/yr
Total Potential to Emit PM =				14.9085 tons/yr
Total Potential to Emit PM-10 =				9.939 tons/yr

Appendix A: Emissions Calculations
PM Emissions from Coke Processing
Company Name: Mid-Continent Coal and Coke Company
Permit Number: 127-16021-05222
Plant ID: 127-05222
Reviewer: ERG/KC
Date: 10/23/2002

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Fugitive Emissions from Coke Storage Piles

Storage pile emissions, which result from wind erosion, are determined by the following calculations:

$$E_f = 1.7 (s/1.5) * (365-p) / 235 * (f/15)$$

$$= 5.67 \text{ lb/ac/day}$$

where:

s =	4.9	% silt content of material
p =	125	days of rain greater than or equal to 0.01 inches
f =	15	% of wind greater than or equal to 12 mph

$$\text{Storage capacity (SC) of site (tons)} = (\# \text{ acres}) * (43560 \text{ sqft/acre}) * (25 \text{ ft high}) * (1/40 \text{ ton/cuft})$$

$$\text{Storage capacity (SC) of site (tons)} = 54450$$

$$\text{Potential PM Emissions (tpy)} = E_f * SC * (40 \text{ cuft/ton}) * 365 \text{ day/yr} / (2000 \text{ lb/ton} * 43560 \text{ sqft/acre} * 25 \text{ ft})$$

$$\text{Potential PM Emissions (tpy)} = 2.07 \text{ tpy}$$

$$\text{Potential PM10 Emissions (tpy)} = 2.07 \text{ tpy}$$

Storage Pile Handling

$$EF \text{ (lb/ton)} = k * (0.0032) * (U/5)^{1.3} / (M/2)^{1.4}$$

where:

k value for:

PM	PM10
0.74	0.35

U value = 10 mph
M value = 12 %
Storage capacity = 54450 tons

$$\text{PM EF} = 4.75\text{E-04} \text{ lb/ton}$$

$$\text{PM10 EF} = 2.24\text{E-04} \text{ lb/ton}$$

$$\text{PM Emissions (ton/yr)} = EF \text{ (lb/ton)} * \text{Storage Capacity (tons)} * 1/2000 \text{ ton/lb}$$

$$\text{PM Emissions (ton/yr)} = 0.013$$

$$\text{PM10 Emissions (ton/yr)} = EF \text{ (lb/ton)} * \text{Storage Capacity (tons)} * 1/2000 \text{ ton/lb}$$

$$\text{PM10 Emissions (ton/yr)} = 0.006$$

Fugitive Emissions from Unpaved Roads

$$4 \text{ trip/hr} \times$$

$$0.0284 \text{ mile/trip} \times$$

$$2 \text{ (round trip)} \times$$

$$8760 \text{ hr/yr} = 1990.272 \text{ miles per year}$$

Method 1:

$$E_f = k * 5.9 * (s/12) * (S/30) * (W/3)^{0.7} * (w/4)^{0.5} * ((365-p)/365)$$

$$= 1.23 \text{ lb/mile}$$

where k = 0.8
s = 4.8 mean % silt content of unpaved roads
p = 125 days of rain greater than or equal to 0.01 inches
S = 4 miles/hr vehicle speed
W = 18 tons average vehicle weight
w = 18.0 wheels

Uncontrolled Fugitive PM/PM10 Emissions

1.23	lb/mi x	1990.272	mi/yr =	1.22	tons/yr
				2000	lb/ton

The source waters the unpaved roads resulting in an estimated 90% PM control efficiency. Therefore,

$$\text{Controlled PM/PM10 Emissions} = 0.12 \text{ tpy}$$

$$\text{TOTAL FUGITIVE PM EMISSIONS (ton/yr)} = 3.31 \text{ tpy}$$

$$\text{TOTAL FUGITIVE PM10 EMISSIONS (ton/yr)} = 3.30 \text{ tpy}$$

Appendix A: Emissions Calculations
Potential Emissions from Internal Combustion Engines

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Company Name: Mid-Continent Coal & Coke

Permit Number: 127-16021-05222

Plt ID: 127-05222

Reviewer: ERG/KC

Date: 10/23/2002

Output
hp

hp-hr/yr

344.0

3013440

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	2.20E-03	2.20E-03	2.05E-03	3.10E-02	2.47E-03	6.68E-03
Potential Emission in tons/yr	3.31	3.31	3.09	46.71	3.72	10.06

Methodology

hp-hr/yr = hp * 8760 hr/yr

Emission Factors are from AP 42, Chapter 3.3, Table 3.3-1, SCC #2-02-001-02 and 2-03-001-01

Emission (tons/yr) = (hp-hr/yr) x Emission Factor (lb/hp-hr)/2,000 lb/ton

Appendix A: Emissions Calculations
Limited Emissions from Internal Combustion Engines

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Company Name: Mid-Continent Coal & Coke

Permit Number: 127-16021-05222

Plt ID: 127-05222

Reviewer: ERG/KC

Date: 10/23/2002

Fuel Limit Limited Output
(kgal/yr) (hp-hr/yr)

80	1600000
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	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	2.20E-03	2.20E-03	2.05E-03	3.10E-02	2.47E-03	6.68E-03
Limited Emission in tons/yr	1.76	1.76	1.64	24.80	1.98	5.34

* Two Reciprocating IC engines

Methodology

hp-hr/yr = hp * 8760 hr/yr

Limited Output (hp-hr/yr) = fuel limit (kgal/yr) x 140,000 (Btu/gal) x 1000 (gal/kgal) x 1/7000 (hp-hr/Btu)

Emission Factors are from AP 42, Chapter 3.3

Emission (tons/yr) = (hp-hr/yr) x Emission Factor (lb/hp-hr)/2,000 lb/ton